

Amendments to the Claims

Please amend the claims as instructed in the marked-up version of the Listing of Claims presented below. This Listing of Claims replaces all prior versions, and listing of the claims in the application.

Listing of Claims

1. (Currently Amended) A method for ~~conducting an operation including~~ balancing battery cells within a power tool battery pack for use with a hand held power tool, the battery pack including a housing, a first battery cell supported by the housing and having a voltage, and a second battery cell supported by the housing and having a voltage, the first battery cell and the second battery cell being arranged in series, the battery pack being connectable to a hand held power tool and being operable to supply power to operate the hand held power tool, said method comprising the act of:

discharging one of the first battery cell and the second battery cell until the voltage of the one of the first battery cell and the second battery cell is substantially equal to the voltage of the other of the first battery cell and the second battery cell.

2. (Original) The method as set forth in Claim 1 and further comprising the acts of:

measuring the voltage of the first cell; and

measuring the voltage of the second cell; and

wherein the discharging act includes discharging the one of the first cell and the second cell having a higher voltage until the voltage of the one of the first cell and the second cell is substantially equal to the voltage of the other of the first cell and the second cell.

3. (Original) The method as set forth in Claim 2 wherein one of the measuring acts provides the discharging act.

4. (Original) The method as set forth in Claim 3 wherein the measuring act associated with the one of the first cell and the second cell provides the discharging act.

5. (Original) The method as set forth in Claim 2 wherein the battery pack further includes a controller connected to the first cell and to the second cell, and wherein the measuring acts include the act of determining the voltage with the controller.
6. (Original) The method as set forth in Claim 5 and further comprising the act of, after the measuring acts, determining, with the controller, on which of the first cell and the second cell to perform the discharging act.
7. (Original) The method as set forth in Claim 1 wherein the battery pack further includes at least one terminal connected to the first cell and to the second cell and operable to connect the battery pack to the power tool, and wherein said method further comprises the act of discharging the first cell and the second cell to supply power through the terminal to power the power tool.
8. (Original) The method as set forth in Claim 1 and further comprising the act of charging the first cell and the second cell.
9. (Original) The method as set forth in Claim 8 wherein the battery pack further includes at least one terminal connected to the first cell and to the second cell and operable to connect the battery pack to a battery charger, the battery charger being connectable to a power source and being operable to supply power to the battery pack, and wherein said charging act includes the act of supplying power from the battery charger to the battery pack.
10. (Original) The method as set forth in Claim 1 wherein the battery pack further includes a third cell supported by the housing and having a voltage, and wherein said method further comprises the act of discharging the third cell until the voltage of the third cell is substantially equal to the voltage of the other of the first cell and the second cell.

11. (Currently Amended) A battery pack for powering a hand held power tool ~~one of multiple power tools, the power tools including a driver drill and a circular saw~~, the battery pack comprising:

a housing ~~selectively~~ connectable to and supportable by the hand held power tool ~~driver drill and the circular saw~~; and

a plurality of battery cells supported by the housing, the battery cells having a combined nominal voltage of approximately 28-volts, the battery cells having a lithium-based chemistry.

12. (Cancelled)

13. (Currently Amended) The battery pack as set forth in Claim 11 ~~12~~ wherein the battery cells have a lithium-manganese chemistry.

14. (Currently Amended) The battery pack as set forth in Claim 11 ~~12~~ wherein the battery cells have a spinel chemistry.

15. (Original) The battery pack as set forth in Claim 11 wherein the plurality of battery cells includes seven battery cells.

16. (Original) The battery pack as set forth in Claim 11 wherein each of the plurality of battery cells has a nominal voltage of approximately 4.2-volts.

17. (Original) The battery pack as set forth in Claim 11 wherein each of the plurality of battery cells has ampere-hour capacity of approximately 3.0 ampere-hours.

18. (Original) The battery pack as set forth in Claim 11 wherein the plurality of battery cells are capable of producing an average discharge current of approximately 20 amps.

19. (Currently Amended) An electrical combination comprising:

a hand held power tool ~~driver-drill~~;

~~a circular-saw~~; and

a battery pack including

a housing ~~selectively~~ connectable to and supportable by the hand held power tool ~~driver-drill and the circular-saw~~, and

a plurality of battery cells supported by the housing, the battery cells having a combined nominal voltage of approximately 28-volts, the battery cells having a lithium-based chemistry.

20. (Cancelled)

21. (Currently Amended) The electrical combination as set forth in Claim 19 ~~20~~ wherein the battery cells have a lithium-manganese chemistry.

22. (Currently Amended) The electrical combination as set forth in Claim 19 ~~20~~ wherein the battery cells have a spinel chemistry.

23. (Original) The electrical combination as set forth in Claim 19 wherein the plurality of battery cells includes seven battery cells.

24. (Original) The electrical combination as set forth in Claim 19 wherein each of the plurality of battery cells has a nominal voltage of approximately 4.2-volts.

25. (Original) The electrical combination as set forth in Claim 19 wherein each of the plurality of battery cells has ampere-hour capacity of approximately 3.0 ampere-hours.

26. (Currently Amended) The electrical combination as set forth in Claim 19 wherein hand held power tool ~~is the driver-drill and the circular-saw are each~~ capable of producing an average current draw of approximately 20 amps.

27. (Currently Amended) The electrical combination as set forth in Claim 19 wherein the hand held power tool includes a driver-drill, the driver-drill including includes

a driver-drill housing ~~selectively~~ connectable with the housing of the battery pack and operable to support the battery pack when connected, and

a motor supported by the driver-drill housing and operable to drive a drill bit, the plurality of battery cells being electrically connectable to the motor to selectively operate the motor.

28. (Currently Amended) The electrical combination as set forth in Claim 19 wherein the hand held power tool includes a circular saw, the circular saw including includes

a saw housing ~~selectively~~ connectable with the housing of the battery pack and operable to support the battery pack when connected, and

a motor supported by the saw housing and operable to drive a saw blade, the plurality of battery cells being electrically connectable to the motor to selectively operate the motor.

29. (Currently Amended) An electrical combination comprising:

a hand held power tool driver-drill capable of producing an average current draw of approximately 20-amps;

~~a circular saw capable of producing an average current draw of approximately 20-amps; and~~

a power tool battery pack operable to supply power to the hand held power tool driver-drill ~~and to the circular saw~~, the battery pack including a plurality of battery cells, the plurality of battery cells each having a lithium-based chemistry.

30. (Original) The electrical combination as set forth in Claim 29 wherein the battery cells have a lithium-manganese chemistry.

31. (Original) The electrical combination as set forth in Claim 29 wherein the battery cells have a lithium-manganese spinel chemistry.

32. (Original) The electrical combination as set forth in Claim 29 wherein the plurality of battery cells includes seven battery cells.

33. (Original) The electrical combination as set forth in Claim 29 wherein each of the plurality of battery cells has a nominal voltage of approximately 4.2-volts.

34. (Original) The electrical combination as set forth in Claim 29 wherein each of the plurality of battery cells has ampere-hour capacity of approximately 3.0 ampere-hours.

35. (Currently Amended) The electrical combination as set forth in Claim 29 wherein the hand held power tool includes a driver-drill, the driver-drill including ~~includes~~

a driver-drill housing ~~selectively~~ connectable with the housing of the battery pack and operable to support the battery pack when connected, and

a motor supported by the driver-drill housing and operable to drive a drill bit, the plurality of battery cells being electrically connectable to the motor to selectively operate the motor.

36. (Currently Amended) The electrical combination as set forth in Claim 29 wherein the hand held power tool includes a circular saw, the circular saw including ~~includes~~

a saw housing ~~selectively~~ connectable with the housing of the battery pack and operable to support the battery pack when connected, and

a motor supported by the saw housing and operable to drive a saw blade, the plurality of battery cells being electrically connectable to the motor to selectively operate the motor.

37. (Currently Amended) The electrical combination as set forth in Claim 29 wherein the battery pack includes a housing ~~selectively~~ connectable to and supportable by the hand held power tool ~~driver-drill and the circular saw~~, and wherein the plurality of battery cells have a combined nominal voltage of approximately 28-volts.

38. (Currently Amended) A battery pack for powering one of multiple hand held power tools, ~~the power tools including a driver drill and a circular saw~~, the battery pack comprising:

a housing ~~selectively~~ connectable to and supportable by a hand held power tool
~~the driver drill and the circular saw~~; and

a plurality of battery cells supported by the housing and having a combined
ampere-hour capacity of approximately 3.0 ampere-hours, the plurality of battery cells each
having a lithium-based chemistry.

39. (Original) The battery pack as set forth in Claim 38 wherein the battery cells have a lithium-manganese chemistry.

40. (Original) The battery pack as set forth in Claim 38 wherein the battery cells have a lithium-manganese spinel chemistry.

41. (Original) The battery pack as set forth in Claim 38 wherein the plurality of battery cells includes seven battery cells.

42. (Original) The battery pack as set forth in Claim 38 wherein each of the plurality of battery cells has a nominal voltage of approximately 4.2-volts.

43. (Original) The battery pack as set forth in Claim 38 wherein the plurality of battery cells are capable of producing an average discharge current of approximately 20 amps.

44. (Original) The battery pack as set forth in Claim 29 wherein the plurality of battery cells have a combined nominal voltage of approximately 28-volts.

45. (Currently Amended) A battery pack for powering one of multiple hand held power tools, ~~the power tools including a driver drill and a circular saw~~, the battery pack comprising:

a housing ~~selectively~~ connectable to and supportable by a hand held power tool ~~the driver drill and the circular saw~~; and

a plurality of battery cells supported by the housing and capable of producing an average discharge current of approximately 20-amps, the plurality of battery cells each having a lithium-based chemistry.

46. (Original) The battery pack as set forth in Claim 45 wherein the battery cells have a lithium-manganese chemistry.

47. (Original) The battery pack as set forth in Claim 45 wherein the battery cells have a spinel chemistry.

48. (Original) The battery pack as set forth in Claim 45 wherein the plurality of battery cells includes seven battery cells.

49. (Original) The battery pack as set forth in Claim 45 wherein each of the plurality of battery cells has a nominal voltage of approximately 4.2-volts.

50. (Original) The battery pack as set forth in Claim 45 wherein the plurality of battery cells having a combined ampere-hour capacity of approximately 3.0 ampere-hours.

51. (Original) The battery pack as set forth in Claim 45 wherein the plurality of battery cells have a combined nominal voltage of approximately 28-volts.